```
Consensus       MALPYHIFLF TVLLPSFTLT APPPCRCMTS SSPYQEFLWR MQRPGNIDAP SYRSLSKGTP TFTAHTHMPR NCYHSATLCM HANTHYWTGK MINPSCPGGL   100
P Env DNA 10    .......... .......... .......... .......... .......... .......... .......... .......... .......... ..........   100
P Env DNA 21    .......... .......... .......... .......... .......... .......... .......... .......... .......... ..........   100
P Env DNA 6     .......... .......... .......... .......... .......... .......... .......... .......... .......... ..........   100

Consensus       GVTVCWTYFT QTGMSDGGGV QDQAREKHVK EVISQLTRVH GTSSPYKGLD LSKLHETLRT HTRLVSLFNT TLTGLHEVSA QNPTNCWICL PLNFRPYVSI   200
P Env DNA 10    .......... .......... .......... .......... .......... .......... .......... .......... .......... ..........   200
P Env DNA 21    .......... .......... .....A.... .......... .......... .......... .......... .......... .......... ..........   200
P Env DNA 6     .......... .......... .......... .......... .......... .......... .......... .......... .......... ..........   200

Consensus       PVPEQWNNFS TEINTTSVLV GPLVSNLEIT HTSNLTCVKF SNTTYTTNSQ CIRWVTPPTQ IVCLPSGIFF VCGTSAYRCL NGSSESMCFL SFLVPPMTIY   300
P Env DNA 10    .......... .......... ...A...... .......... .......... .......... .......... .......... .......... ..........   300
P Env DNA 21    .......... .......... .......... .......... .......... .......... .......... .......... .......... ..........   300
P Env DNA 6     .......... .......... .......... .......... .......... .......... .......... .......... .......... ..........   300

Consensus       TEQDLYSYVI SKPRNKRVPI LPFVIGAGVL GALGTGIGGI TTSTQFYYKL SQELNGDMER VADSLVTLQD QLNSLAAVVL QNRRALDLLT AERGGTCLFL   400
P Env DNA 10    .......N... .......... .......... .......... .......... .......... .......... .......... .......... ..........   400
P Env DNA 21    .......... .......... .......... .......... .......... .......... .......... .......... .......... ..........   400
P Env DNA 6     .......... .......... .......... .......... .......... .......... .......... .......... .......... ..........   400

Consensus       GEECCYYVNQ SGIVTEKVKE IRDRIQRRAE ELRNTGPWGL LSQWMPWILP FLGPLAAIIL LLLFGPCIFN LLVNFVSSRI EAVKLQMEPK MQSKTKIYRR   500
P Env DNA 10    .......... .......... .......... .......... .......... .......... .......... .......... .......... ..........   500
P Env DNA 21    .......... .......... .......... .......... .......... .......... .......... .......... .......... ..........   500
P Env DNA 6     .......... .......... .......... .......... .......... .......... .......... .......... .......... ..........   500

Consensus       PLDRPASPRS DVNDIKGTPP EEISAAQPLL RFNSAGSS                                                                    538
P Env DNA 10    .......... .......... .......... ........                                                                    538
P Env DNA 21    .......... .......... .......... ........                                                                    538
P Env DNA 6     .......... .......... .......... ........                                                                    538
```

FIG. 1

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FIG. 2

```
Consensus   ATGGCCCTCC CTTATCATAT TTTTCTCTTT ACTGTTCTTT TACCCTCTTT CACTCTCACT GCACCCCCTC CATGCCGCTG TATGACCAGT AGCTCCCCTT ACCAAGAGTT TCTATGGAGA  120
Env DNA 6   .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... ..........  120
Env DNA 10  .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... ..........  120
Env DNA 21  .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... ..........  120

Consensus   ATGCAGCGTC CCGGAAATAT TGATGCCCCA TCGTATAGGA GTCTTTCTAA GGGAACCCCC ACCTTCACTG CCCACACCCA TATGCCCCGC AACTGCTATC ACTCTGCCAC TCTTTGCATG  240
Env DNA 6   .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... ..........  240
Env DNA 10  .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... ..........  240
Env DNA 21  .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... ..........  240

Consensus   CATGCAAATA CTCATTATTG GACAGGAAAA ATGATTAATC CTAGTTGTCC TGGAGGACTT GGAGTCACTG TCTGTTGGAC TTACTTCACC CAAACTGGTA TGTCTGATGG GGGTGGAGTT  360
Env DNA 6   .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... ..........  360
Env DNA 10  .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... ..........  360
Env DNA 21  .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... ..........  360

Consensus   CAAGATCAGG CAAGAGAAAA ACATGYAAAA GAAGTAATCT CCCAACTCAC CCGGGTACAT GGCACCTCTA GCCCCTACAA AGGACTAGAT CTCTCAAAAC TACATGAAAC CCTCCGTACC  480
Env DNA 6   .......... .......... .....T.... .......... .......... .......... .......... .......... .......... .......... .......... ..........  480
Env DNA 10  .......... .......... .....T.... .......... .......... .......... .......... .......... .......... .......... .......... ..........  480
Env DNA 21  .......... .......... .....C.... .......... .......... .......... .......... .......... .......... .......... .......... ..........  480

Consensus   CATACTCGCC TGGTAAGCCT ATTTAATACC ACCCTCACTG GGCTCCATGA GGTCTCGGCC CAAAACCCTA CTAACTGTTG GATATGCCTC CCCCTGAACT TCAGGCCATA TGTTTCAATC  600
Env DNA 6   .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... ..........  600
Env DNA 10  .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... ..........  600
Env DNA 21  .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... ..........  600

Consensus   CCTGTACCTG AACAATGGAA CAACTTCAGC ACAGAAATAA ACACCACTTC CGTTTTAGTA GGACCTCTTG YTTCCAATCT GGAAATAACC CATACCTCAA ACCTCACCTG TGTAAAATTT  720
Env DNA 6   .......... .......... .......... .......... .......... .......... .......... T......... .......... .......... .......... ..........  720
Env DNA 10  .......... .......... .......... .......... .......... .......... .......... C......... .......... .......... .......... ..........  720
Env DNA 21  .......... .......... .......... .......... .......... .......... .......... T......... .......... .......... .......... ..........  720

Consensus   AGCAATACTA CATACACAAC CAACTCCCAA TGCATCAGGT GGGTAACTCC TCCCACACAA ATAGTCTGCC TACCCTCAGG AATATTTTTT GTCTGTGGTA CCTCAGCCTA TCGTTGTTTG  840
Env DNA 6   .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... ..........  840
Env DNA 10  .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... ..........  840
Env DNA 21  .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... ..........  840

Consensus   AATGGCTCTT CAGAATCTAT GTGCTTCCTC TCATTCTTAG TGCCCCCTAT GACCATCTAC ACTGAACAAG ATTTATACAR TTATGTCATA TCTAAGCCCC GCAACAAAAG AGTACCCATT  960
Env DNA 6   .......... .......... .......... .......... .......... .......... .......... .........G .......... .......... .......... ..........  960
Env DNA 10  .......... .......... .......... .......... .......... .......... .......... .........A .......... .......... .......... ..........  960
Env DNA 21  .......... .......... .......... .......... .......... .......... .......... .........G .......... .......... .......... ..........  960

Consensus   CTTCCTTTTG TTATAGGAGC AGGAGTGCTA GGTGCACTAG GTACTGGCAT TGGCGGTATC ACAACCTCTA CTCAGTTCTA CTACAAACTA TCTCAAGAAC TAAATGGGGA CATGGAACGG  1080
Env DNA 6   .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... ..........  1080
Env DNA 10  .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... ..........  1080
Env DNA 21  .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... ..........  1080

Consensus   GTCGCCGACT CCCTGGTCAC CTTGCAAGAT CAACTTAACT CCCTAGCAGC AGTAGTCCTT CAAAATCGAA GAGCTTTAGA CTTGCTAACC GCTGAAAGAG GGGGAACCTG TTTATTTTTA  1200
Env DNA 6   .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... ..........  1200
Env DNA 10  .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... ..........  1200
Env DNA 21  .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... ..........  1200

Consensus   GGGGAAGAAT GCTGTTATTA TGTTAATCAA TCCGGAATCG TCACTGAGAA AGTTAAAGAA ATTCGAGATC GAATACAACG TAGAGCAGAG GACCTTCGAA ACACTGGACC CTGGGGCCTC  1320
Env DNA 6   .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... ..........  1320
Env DNA 10  .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... ..........  1320
Env DNA 21  .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... ..........  1320
```

```
Consensus    CTCAGCCAAT GGATGCCCTG GATTCTCCCC TTCTTAGGAC CTCTAGCAGC TATAATATTG CTACTCCTCT TTGGACCCTG TATCTTTAAC CTCCTTGTTA ACTTTGTCTC TTCCAGAATC  1440
Env DNA 6    .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... ..........  1440
Env DNA 10   .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... ..........  1440
Env DNA 21   .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... ..........  1440

Consensus    GAAGCTGTAA AACTACAAAT GGAGCCCAAG ATGCAGTCCA AGACTAAGAT CTACCGCAGA CCCCTGGACC GGCCTGCTAG CCCACGATCT GATGTTAATG ACATCAAAGG CACCCCTCCT  1560
Env DNA 6    .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... ..........  1560
Env DNA 10   .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... ..........  1560
Env DNA 21   .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... .......... ..........  1560

Consensus    GAGGAAATCT CAGCTGCACA ACCTCTACTA CGCCCCAATT CAGCAGGAAG CAGTTAG  1617
Env DNA 6    .......... .......... .......... .......... .......... .......  1617
Env DNA 10   .......... .......... .......... .......... .......... .......  1617
Env DNA 21   .......... .......... .......... .......... .......... .......  1617
```

FIG. 2 continued

```
Consensus   TGAGAGACAG GACTAGCTGG ATTTCCTAGG CCGACTAAGA ATCCCTAAGC CTAGCTGGGA ARGTGACCAC GTCCACCTTT AAACACGGGG CTTGCAACTT   100
LTR6 c1A    .......... .......... .......... .......... .......... .......... .......G.. .......... .......... ..........   100
LTR21 c1S   .......... .......... .......... .......... .......... .......... .......A.. .......... .......... ..........   100

Consensus   AGCTCACACC TGACCAATCA GAGAGCTCAC TAAAATGCTA ATTAGGCAAA GACRGGAGGT AAAGAAATAG CCAATCATCT ATTGCCTGAG AGCACAGCAG   200
LTR6 c1A    .......... .......... .......... .......... .......... ...A...... .......... .......... .......... ..........   200
LTR21 c1S   .......... .......... .......... .......... .......... ...G...... .......... .......... .......... ..........   200

Consensus   GAGGGACAAY RATCGGGATA TAAACCCARG YMTTCGAGCY GGCAAC                                                            246
LTR6 c1A    .........T G......... .........A. TC.......C ......                                                            246
LTR21 c1S   .........C A......... .........G. CA.......T ......                                                            246
```

Fig. 3

F16. 4

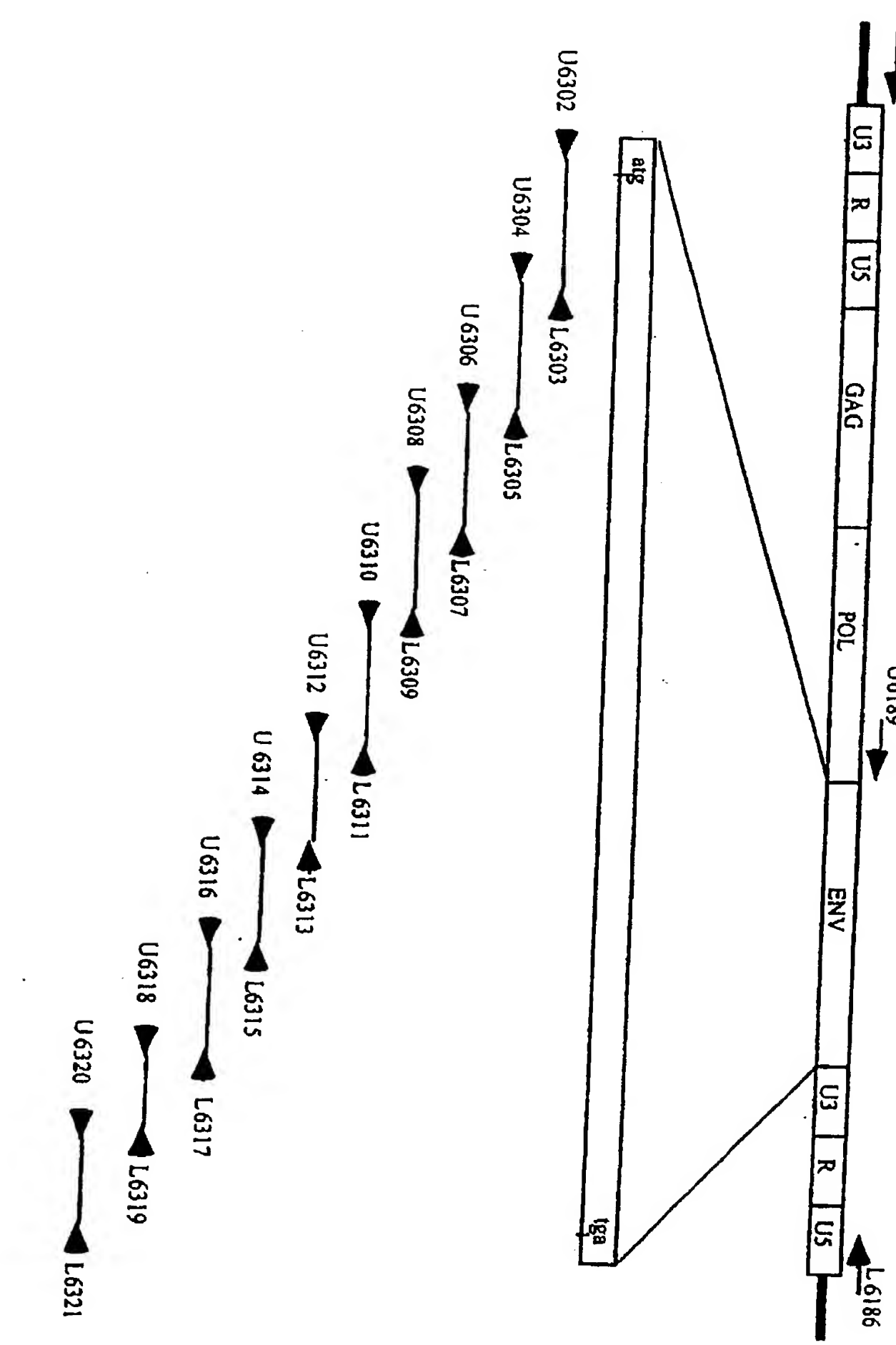

FIGURE 4

FIG. 5

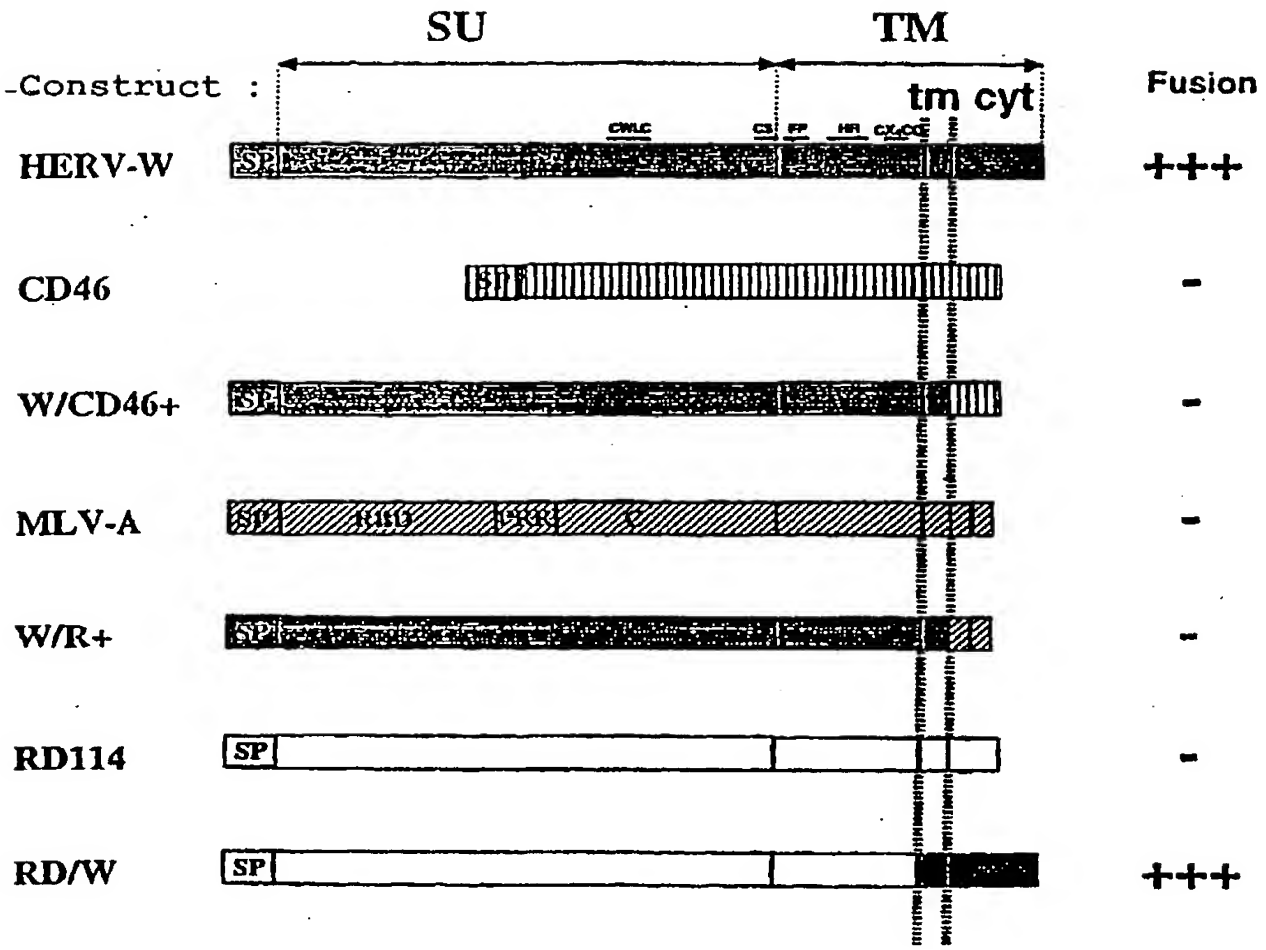

Figure XXX [sic]. Scheme and characterization of the chimeric Env HERV-Ws